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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,949	10/21/2004	Michael Habele	3129	8788

7590 09/20/2005

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EXAMINER	
PRESTON, ERIK D	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,949	HABELE, MICHAEL	
	Examiner	Art Unit	
	Erik D. Preston	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-5,7 & 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912).

With respect to claim 1, Habele teaches a braking device for an electric motor (Fig. 1, #10) comprising: A rotor (Fig. 1, #12) and a stator (Fig. 1, #11); a brake element (Fig. 1, #23) which is movable between a braking position and an operating position, wherein a brake shoe (Fig. 1, #31) which brakes the rotor in the braking position is mounted on the brake element on a trailing end relative to the direction of rotation of the rotor, but doesn't teach the electric motor being a direct current series wound motor. However, direct current series wound motors were well known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the motor of Habele in view of a series wound DC motor because they have a high starting torque.

With respect to claim 2, Habele teaches the braking device of claim 1, wherein the brake element has a brake arm (Fig. 1, #29) on the trailing end that carries the brake shoe, and has a disengagement arm (Fig. 1, #30) on a leading end.

With respect to claim 3, Habele teaches the braking device of claim 1, wherein the stator has a yoke part (Fig. 1, #13) of a magnetically conductive material on a leading end and has a stator winding (Fig. 1, #14).

With respect to claim 4, Habele teaches the braking device of claim 3, wherein the brake element is magnetically conductive, and together with the yoke part on the leading end, encloses a motor air gap (Fig. 1, #32) with the rotor that in the braking position, on the leading end has an essentially constant gap width.

With respect to claim 5, Habele teaches the braking device of claim 3, wherein between the yoke part and the leading end of the disengagement arm of the brake element there is an air gap, and in the yoke part on the leading end, between the stator winding and the air gap from the disengagement arm of the brake element there is a constriction which forms a magnetic resistor in the yoke part on the leading end (as seen in Fig. 1).

With respect to claim 7, Habele teaches the braking device of claim 1, further comprising: A bearing pin (Fig. 1, #27) for supporting the brake element, the bearing pin being supported in a fixed bearing point by a positive-engagement that is secure against relative rotation.

With respect to claim 9, Habele teaches the braking device of claim 1, wherein the brake element is prestressed in the direction of the braking position by a compression spring (Fig. 1, #34), but it does not teach that a guide spur for the compression spring that protrudes into the compression spring is disposed on the brake element. However, guide spurs were well known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the brake element of Habele in view of a guide spur because they can be used to hold springs firmly in a desired location.

With respect to claim 10, Habele teaches an electric motor having a breaking device of claim 1.

With respect to claim 11, Habele teaches a machine tool having an electric motor of claim 10.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912) in view of Nitta et al. (US 6265804). Habele teaches the braking device of claim 1, wherein the yoke is disposed axially relative to a pivot axis (Fig. 1, #28), but doesn't teach the brake element, the yoke part on the leading end, or another yoke part on the trailing end having a plurality of lamination packets, which comprise a plurality of electrical laminations. However, Nitta teaches a yoke part (Fig. 1) having a plurality of lamination packets, which comprise a plurality of electrical laminations that are disposed axially. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the yoke part of Habele in view of the yoke part as taught by Nitta because it restrains the unbalancing in the magnetic attractive forces acting in the core while also reducing vibration, noise, and iron losses (Col. 1, Lines 41-49).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912) in view of Guenther et al. (US 6326710). Habele teaches the breaking device of claim 1, but does not teach that the breaking element, in the breaking position, rests on the trailing end of a fixed stop face, and that the stop face has a predetermined angle of inclination relative to a radial direction, in order to attain a self-clamping of the brake element. However, Guenther teaches an integral braking element (Fig. 2, #22) resting on the trailing end of a fixed (to a rotor shaft) stop face

(Fig. 2, #30), and that the stop face has a predetermined angle of inclination relative to a radial direction, in order to attain a self-clamping of the brake element. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the brake element of Habele in view of the brake element as taught by Guenther because it reduces run-down times in electrical tools, without requiring any additional installation space (Guenther, Col. 1, Lines 21-53).

Response to Arguments

Applicant's arguments filed 09/06/2005 have been fully considered but they are not persuasive. In response to the applicant's argument that the brake shoe is located on the leading end of the brake arm and not on the trailing end, it is noted that the claims do not clearly disclose what is meant by the term "trailing end" because no point of reference, other than the direction of the rotation of the rotor, is given. In figure 1 of the Habele reference as applied in the rejection of claim 1, if the arrow of rotation in the diagram is used as the point of reference, it can be said that the brake shoe (which lies just over the tail end of said arrow of rotation) lies at a trailing end of this vector. An amendment to the claims to further clarify what is meant by the term "trailing end" could possibly overcome all rejections including the Habele (WO 00/39912) reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is 571-272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09/12/2005

DARREN SCHUBERG
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